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Volume XIV June, 1961 Number 2

THE VENEER HAMMER

J. Didsbury

(Three sources were used in preparing this report. *Modern Cabinet Work, Furniture & Fitments,* by Percy A. Wells and John Hooper, London, 1909; *Spons' Mechanics' Own Book,* E. & F. N. Spon, London, 1925; and an interview with Mr. *Jan Heuvel,* Master Cabinet Maker, Colonial Williamsburg. Mr. Heuvel served his apprenticeship under his father in Holland and practiced his craft there for many years before coming to Colonial Williamsburg.)

THE USE of veneer can be traced back to the ancient Egyptians. Unfortunately, today most American households associate veneering as the means to cover

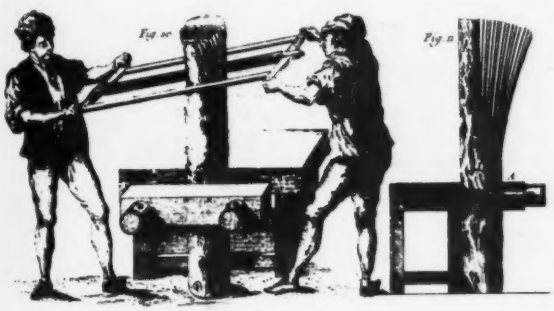


Fig. 1. Sawing veneer by hand. Roubo, 1772.

up cheap and shabby work or to make a cheap piece of furniture look like an expensive solid mahogany one. When veneering is done well and shows that it is veneer, it is the best and most effective work for the following reasons: 1. It is the only way to use the rare woods as "curls" in satinwood and mahogany, "Burrs" in walnut or amboyna, and cross-grained but pretty wood which would only twist if used in the solid. 2. The extra layer of veneer tends to strengthen and preserve the wood upon which it is laid. 3. That veneering gives the only opportunity for flat decoration in furniture, by using the grain of the wood for designs in panels and on wide surfaces. 4. The process needs more care and thought in the selection of wood, its preparation, application, and finish than ordinary "solid" work requires.

We admire in our museums the many pieces of fine, beautiful and lasting veneered furniture that has come to us out of the past testifying to the excellent work and craftsmanship that has gone into the piece.

It is agreed that the best woods for veneering should be of the softest kinds and of perfectly straight grain, without knots. In this division the best is American yellow pine, which warps less and contains less resin than other pines. Hard wood can be veneered and the best hard wood to veneer upon is plain Honduras mahogany, principally because it warps and shrinks less than most woods. Hard wood that will warp and twist, such as cross-grained mahogany, should be avoided.

Making Veneer: Figure 1 illustrates the hand method of sawing veneer in the eighteenth century taken from a three volume eighteenth century French manual on woodworking by Andre-Jacob Roubo. This was the accepted method when the first machine turned a large circular saw that cut logs in varying thickness from 1/32 to 1/16 inch and produced twelve or fourteen sheets to the inch. A later development, that of "knife cut" veneer, is much thinner, and with this latter method it is possible to get from fifty to a hundred in the inch! It would be quite impossible to cut thin strips by the hand saw-cut method. They are usually 1/8 inch thick. However, this allows them to be planned to any desired thickness which was done in the eighteenth and early nineteenth centuries.

Preparation of the Veneer: Bear in mind that veneer is extremely thin and various types of wood will produce various types of grain, not always straight but also wavy and circular. The cutting is not easy, owing to the tendency of the veneer to split. It should be placed on a flat board, and marked to the size it is to cover allowing a small portion to overlap; this will be explained later. Thin veneer can be cut lengthwise by a steel point or marker against a straight edge and cuts across the grain with a fine dovetail saw. Or very plain wood can be cut with a chisel or shoemaker's knife. The thicker veneer sheets are best cut with a saw, either dovetail or tenon, or a veneer saw (for veneer saw, see page 7, Woodworking Tools at Shelbourne Museum publication). Walnut burrs are best cut with scissors. A cutting gauge can also sometimes be used.

Preparation of the Veneer and Grounds: The wood upon which the veneer is to be laid is called the *ground*. Both must be carefully prepared. To remove the saw cuts the surface of both are planed with a *tooth plane*. This is a small plane with a single, upright blade, which is milled or grooved on the face, so that the edge has sawlike points, figure 2&3. The toothing should be done both up and down and across and all over the surface. The use of the tooth plane not only smooths the sur-

Fig. 2. Tooth plane. Photo by Shelburne Museum. Approximately 7" x 2½".

face but also opens up the grain of the wood in order to facilitate the penetration of the glue. Generally a fine tooth plane is used on the veneer due to its thinness and a coarser one on the ground. Both are carefully inspected after planing for indentions or saw marks that might not have been removed. Such could easily cause "blisters" to occur when the veneer is laid.

PREPARATION OF THE GLUE: Hot animal glue is used, made to the correct consistency. This should be kept close at hand, boiling hot and free of any foreign particles or lumps.

SIZING THE GROUND AND VENEER: The ground first should be sized and allowed to dry overnight before the veneer is laid. When ready to lay the side of the veneer that is not to be glued is dampened with hot water and glue applied to the other side; the ground is again gone over as quickly as possible. Mr. Heuvel informed me that neither he nor his father ever sized the veneer. He feels that this is not necessary if sufficient glue has been placed on the ground. The hot water with which the upper surface of the veneer is sponged is sufficient to open up its pores and allow the glue on the ground to penetrate up and into the veneer.

PROCESS OF FIXING OR LAYING THE VENEER WITH THE VENEER HAMMER: According to Spons the veneer hammer is either kept in the basin that holds the hot water to heat the glue or in a separate basin of hot water, thus the hammer is kept damp and hot. Wells and Hooper do not mention this practice, nor does Mr. Heuvel. As soon as the veneer and ground are sized the veneer is

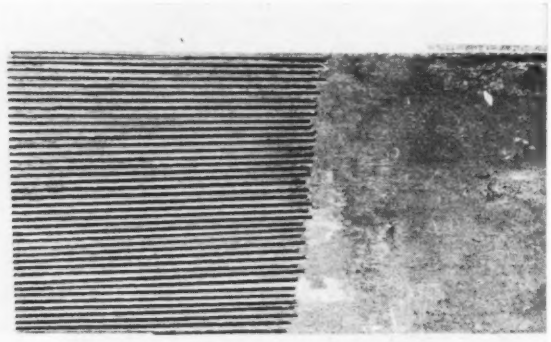


Fig. 3. Iron for tooth plane. Photo by Shelburne Museum. Approximately 6⅜" x 2⅛".

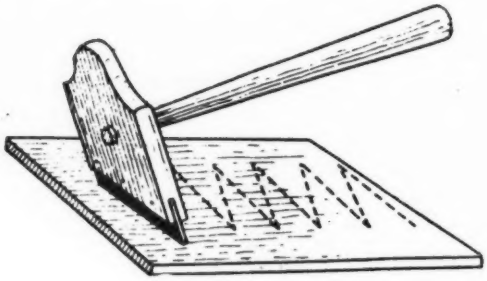


Fig. 4. Zigzag method with veneer hammer.

laid on the ground and pressed with outspread hands taking care that the edges of the veneer overlaps a little all around. The veneer hammer is grasped in the right hand, (with Spons' recommending the hot water be shaken from it) with the left hand pressing on the head or pane, and starting in the center it is worked backwards and forwards with a zigzag motion, as shown in figure 4, towards the outside edges, going over the whole surface quickly, and repeating the strokes from the center until the air and surplus glue are forced out. Mr. Heuvel never uses a zigzag method on straight grain veneer but a straight pressing motion. However, he informed me, that on wood which has a circular or wavy grain such a zigzag method with the width of the veneer hammer following the grain is advisable. Never use the blade of the hammer cross-wise down the grain as this could easily cause the veneer to split or to slip.

To test the laying, the surface is carefully examined for "blisters" or air spaces. Those blisters that might escape notice can be detected by the hollow sound they give when tapped with the handle of the veneer hammer. Mr. Heuvel uses the tip of his finger nail. Lightly tapping the

Fig. 5. Veneer iron — Roubo's Manual, 1772.

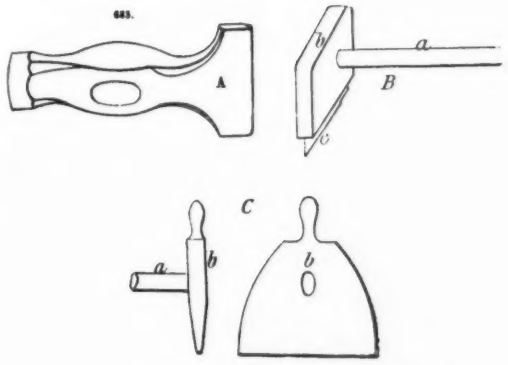


Fig. 6. Shop veneer hammers, from Spons'.

veneer for any hollow sounds. He informed me that blisters can also be caused by the grain of the veneer.

When blisters are discovered the surface of the veneer is sponged with hot water and a hot iron or the inner vessel of the glue-pot itself must be applied and the process with the hammer repeated. Figure 5 is an interesting iron designed for this purpose illustrated in Roubo, 1772, French Manual of Woodworking. The top illustration shows a side view and the bottom a top view. It is 15 to 18 inches long, almost an inch thick, and the iron two inches wide.

Mr. Heuvel uses a cork to fix any blister that might form after the veneer has set. He rubs the cork over the blister and the heat created by this friction melts the glue underneath and it can then be pressed down.

He has used this cork method for blisters on veneered furniture which is two or three years old as long as the glue used was animal glue and not cold glue. If the surface has been finished, that is shellaced, waxed or finished with any other finish; to keep from marring this finish, he places a sheet of drawing paper over the blister and rubs it with the cork. If this does not work then using a pin, a fine hole is made in the blister and steam is applied to melt the glue, pressed down and clamped and allowed to set.

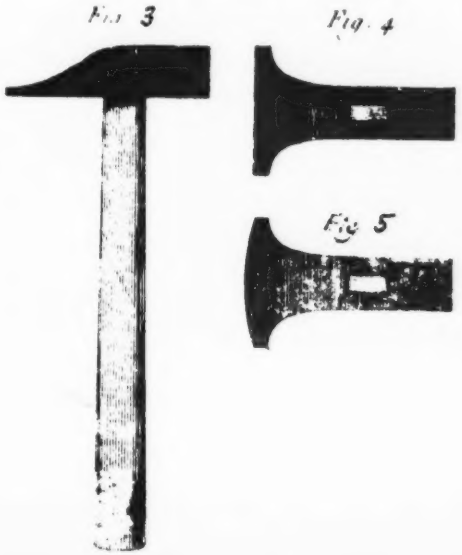


Fig. 7. French veneer hammers, Roubo's Manual, 1772.

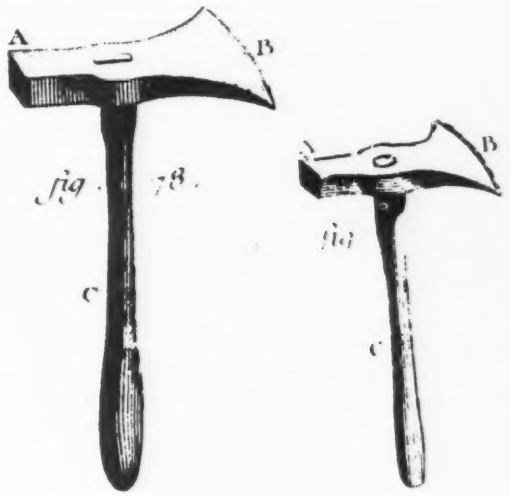
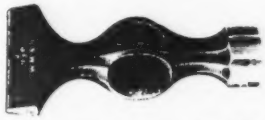


Fig. 8. French Veneer Hammer, Diderot's Encyclopedia.

OVERLAPPING THE VENEER: Mr. Heuvel explains this thus: The veneer is overlapped about a quarter of an inch. A straight edge is laid down the center of the overlap and both pieces are cut with a sharp knife. The top cut piece is then removed and lifted to remove the lower cut piece. Both are then laid back together and pressed with the hammer. This affords a perfect fitting.



3906 London Veneering Hammers, Handled—
Nos. 2 3 4
39/- 42/- 48/- dozen.

Fig. 9. London Veneer hammer, 1928.

The veneering "hammer" resembles an ordinary hammer in little but its shape. There are various varieties of this hammer. In Figure 6, "A" shows one that may be termed the "shop" style of veneering hammer-head. "B" and "C" are hammers that can be made by the worker. The form "B" is made as follows: a handle "a", 12 inches long and 1 inch thick, is inserted in a hole bored in the center of a piece of hard wood "b", 6 inches square and 1 inch thick, in the bottom edge of which a slit about 1 inch deep is cut with a thick saw, and into this slit is fitted a piece of iron or steel plate "c", 6 inches long and 2 inches wide, secured by two rivets. The corners of the top and

Fig. 10. American veneer hammer — c. 1840 — Photo by Shelburne Museum.

bottom edges of the wood and the plate are rounded and smoothed. The construction of the hammer in "C" is evident; "a" is the handle; "b" is the head.

Figure 7 is an illustration of the veneer hammers from Roubo's Manual. He explains that there are two kinds of veneer hammers; figure 3 and 4 show the usual type that are used on flat surfaces while figure 5 shows the type that is used on surfaces that are hollow. The pane in both is about 3 inches wide. Figure 8 is the illustration of a large and small veneering hammer with steel heads from Diderot's Encyclopedia 1767. Figure 9 illustrates an iron London Veneering Hammer from the catalog of William Marples & Sons, Centenary Edition, 1928.

Figure 10 is an American-made veneer hammer dated about 1840 and figure 11, a modern Swedish veneer hammer both in the Shelburne Museum.

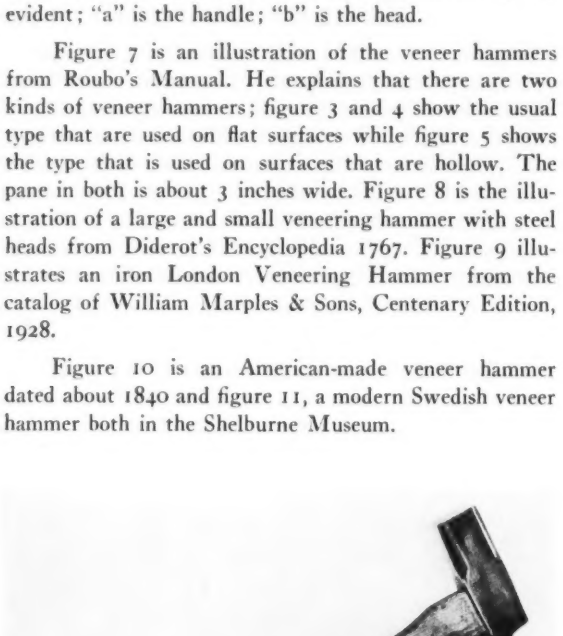


Fig. 11. Modern Swedish veneer hammer — Photo by Shelburne Museum.

Tools of the Early Wigmaker

EDWIN C. WHITTEMORE

PICTURED above are two early wigmaker's tools from our collection. The one on the left is a "disentangling card" used to straighten out hair. A wigmaker would have various types of these cards, such as, drawing, preparing, fine, etc. Hair was made up into parcels, generally about the amount that one could hold in the palm of his hand and tied at the root ends. It is 8 inches long, 5½ inches wide, 4½ inches high. Note the "tree" decoration in the metal panel on the side.

A parcel of newly cut hair was drawn through this disentangling card to remove the old, decayed and small hairs; any foreign matter and to straighten the hairs out. The parcel would later be treated with other types of cards.

The item on the right was known as either a "display block," if it was used to display "ready-made" wigs in the shop window; or a "mounting block," if used to construct a wig upon. The one pictured no doubt was used for both as the many tack marks are clearly visible; it is 9 inches high. Ribbons were tacked onto the mounting block and to these ribbons were sewn the caul of net-like material to which the strands of hair were to be sewn.

NEW PUBLICATION

THE New Jersey Agricultural Society has just published (April 1, 1961) a 75-page monograph on *The Early Hatters of New Jersey* by Harry B. Weiss and Grace M. Weiss. This is the ninth of a series devoted to rural industries that have disappeared.

The text is concerned with the history and types of men's hats in the American colonies, including New Jersey, the hatteries of New Jersey and their locations from 1745 to 1850, the early methods of making beaver, felt and straw hats, hatters' tools, hatboxes, etc. 9 x 6 inches, 75 pages, 15 illustration. Paper bound, $2.00 postpaid.

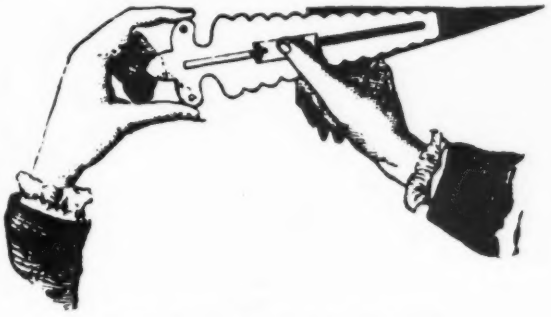
THE NEW JERSEY AGRICULTURAL SOCIETY, 492 Riverside Ave. Trenton 8, N. J.

Early American Industries

Notes from The American Agriculturist, 1842-1872

Luke Shortfield, III

SEARCHING through the old copies of the *American Agriculturist* revealed some interesting tools and machinery that I considered worth preserving in the pages of the Chronicle. This publication was devoted to helping and passing on to the farmer the latest developments and its contents and advertising pages were filled with new and improved farm methods, tools and machinery.



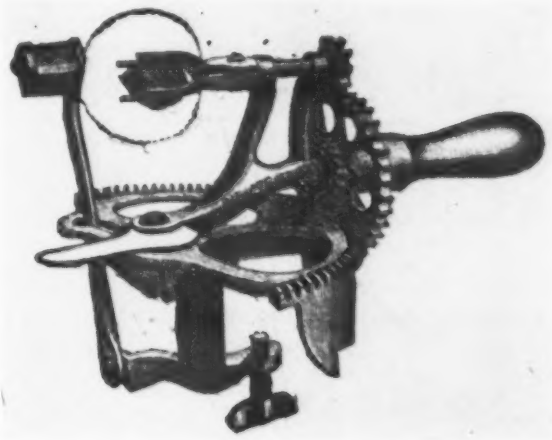
THE PROTEAN LANCETTE

This new gadget, pictured above, appeared on page 231 of the June 1872 issue and was for the every busy women of the farm. The advertisement read thus: "Experience teaches that to secure for an article the favor and patronage of the LADIES, it must combine beauty and elegance of design, with practical utility. The favor with which our modification of the BUTTON-HOLE CUTTER has been received predicts that no Lady's Work-Basket will be regarded as complete without it. It is also an admirable Envelope, Leaf, and paper Knife." "DIRECTIONS. To extend the Lancet, hold the instrument as illustrated by the engraving; then, holding it as you would a pen, with the cutting edge from you, insert the point (where you wish to commence the button-hole) until you are stopped by the gauge. Be careful not to extend the point too far at first, but cut and try until the hole is a sufficient size to allow the button to pass through; then observe at what point the slide is on the scale, that you may be able to retain the size. The Lancet can be sharpened like an ordinary knife. Samples mailed post-paid on receipt of 50 cents." This was sold by the Doolittle Manufacturing Co., 509, Broadway, New York.

PEACH PARER

In the same issue and page appeared a new peach parer that should be of interest to our members who collect these items.

"A continuous and urgent inquiry for a machine for Paring Peaches, has been ringing in our ears from all Peach-growing sections, for the past five years, and in response to this universal appeal, the manufacturers of the Lightning and Turn-Table Apple Parers have at last succeeded in obtaining and securing a device for Holding and Parting Peaches, which is as practical and economical as the Apple Parer, and cannot fail to come into immediate and general use. They pare Apples also, as well as any Apple Parer."



"They were exhibited in the Fall of 1869, at the New York, Ohio, Indiana, Illinois, Wisconsin, Minnesota, and St. Louis Fairs, and in every instance the judges were delighted with the rapidity and perfection of their work, and awarded them the highest Premium. A limited quanity of them has been made for distribution this year, in anticipation of the immense sale that must speedily follow. On receipt of $1.50 we will send a sample machine by Express." . . . "P.S. — We are also Sole Agents for the Lightning and Turn-Table Apple Parers." This was sold by the Sargent & Co., Sole Agents, 70 Beekman Street, New York.

MARKING SHEEP

This account appeared in the September, 1851 issue, page 270.

"The German Merino wool growers have various methods of marking their sheep. The signs, or marks, are either put on by means of color, burnt in, tattooed, cut in, or marks hung round the neck. Sheep, which are destined for the butcher, are marked with paint on the back, or side. The rams are marked upon the horns with hot irons, upon which the numbers, or signs, are engraved." "A very common method, is tattooing. It is done on the inside of the ear by means of signs, or figures, formed of steel points, and forced into the skin in the following manner: — First, a kind of thick paint is made of vermilion, indigo, or gun-powder, and whiskey; when the paint is prepared, the sheep to be marked is bound and placed upon a table and held by one person, while another puts the paint upon the inside of the ear, and presses the signs, or numbers, into the skin, without causing it to bleed; when the instrument has been withdrawn, the paint is rubbed into the marks. In about three weeks, the marks become hardened and are indelible."

"All the sheep of the County Caroly's flocks are marked in this way, corresponding with their register and

pedigree. The signs and numbers were very distinct, even in old sheep, which had been marked for several years."

"The instrument used there, is constructed as follows: Upon the lower jaw of a pair of nippers, as seen in figure 72, there are grooves a,b,c,d, into which the numbers, or marks, are inserted; these marks, or numbers are formed of steel points, as seen in figure 73."

"Fig. 74, shows two ears, in one which is tattooed 3,465; in the other, the number seven, indicating the year, 1847.

"The same instrument can be used for cutting marks in the ears, by placing instead of numbers or signs, a cutting iron in the shape of a lozenge, with which a part can be cut out from the ear. This method of marking, I practised myself very extensively in the flocks of the

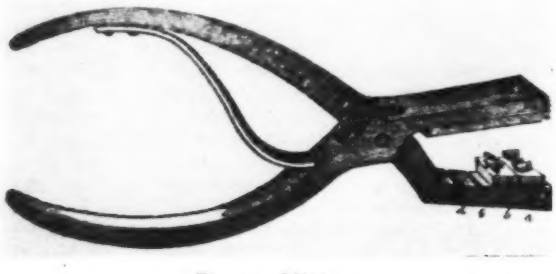


Fig. 72. Nippers.

Count Leinsheim, in Bavaria. Fig. 75 represents ears marked in that way, making the number 2,294, namely:—

On the point of the left ear	25
below, four times one,	4
above, three times five	15
On the point of the right ear	50
above 4 times 500	2,000
below, 2 times 100	200
	2,294

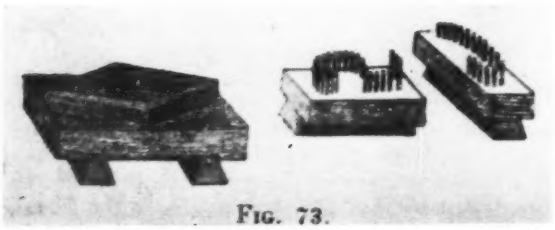


FIG. 73.

Fig. 73.

"Lambs are marked with small pieces of lead, or wood, upon which the number has been stamped, and which are suspended around their necks until they have arrived at an age when the operation of tattooing, or cutting the ear, is done without injuring them. — C. L. Fleischmann, in Patent-Office Report."

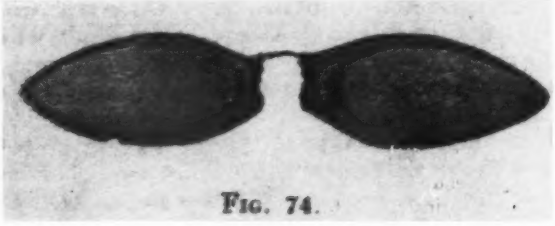
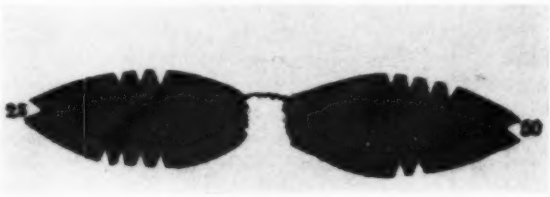


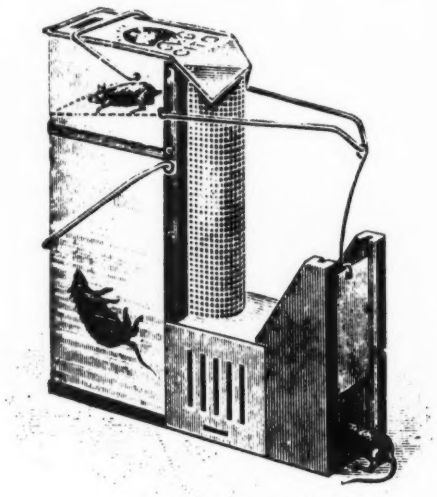
FIG. 74.

Fig. 74.



Rig. 75.

INTERESTING MOUSE TRAP



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IN GOING through an Eicken & Cia Catalog No. 262, Westphalie, no date, but probably c. 1920-30, we ran across this interesting mouse trap. It was illustrated under "Pieges Diverse" or "Various Traps" and was number 996 — "Pieges automatiques à souris . . ." which translated means automatic mouse trap. No description of the operation of the trap was given but from studying the picture it would appear that the mouse entered in the door on the right and somehow made his way up the mesh-like cylinder to the top and into the top of the tank. By the position of the wire it would appear that the door closes and that the mouse then falls into the tank filled with water and drowns! Ingenious! What!

FALL MEETING - 1961

NOVEMBER 3, 4, and 5, has been set aside for our Fall Meeting to be held in Lancaster Valley Museum, Pennsylvania. We feel this will be a most interesting and informative meeting as many of the hand crafts are still practiced there. Mr. Edward Durell, Chairman of EAIA Meetings, will have complete information for us in the September issue of the Chronicle.

Early American Industries

CORDAGE OF NATIVE MATERIALS

Per Ernst Guldbeck

ONE OF the minor but important crafts of early American life which has been displaced by baling wire, binder twine, and manila rope is the manufacture of cordage out of native grasses and barks. Ropes, lines, seines, and nets have been made from these humble materials, and served man satisfactorily, from Mesolithic times up until almost the present. It was utilized by the American Indians, and by the early pioneers and farmers, who had in many cases known the technique in their European homelands.

The term "rope-making" usually conjures up visions of the classical rope-walk, set either in a long building or out in the farm orchard. But just as often rope was spun with a simple crank, known as a wimble stock, or was simply spun and twisted in the hand. This last, and simplest technique, which requires no tools, is somewhat slower than the rope-walk or wimblestock method. But, whereas the other methods require a helper, this has the advantage that one person can, on his own, turn out respectable lengths of rope or cordage.

Of the various materials used, Moosewood was the simplest to convert for rough temporary tying jobs. (For those who may not be familiar with Moosewood by name, it is a small shrubbery soft-maple with disproportionately large leaves, and a rather bright green bark with vertical white stripes.) A long stripe of combined inner-outer bark was "rossed" or shaved off with a knife, and used as was to tie up packages, bundles, or to bind together rough twig brooms. Moosewood bark has the virtue that it can easily be peeled or sliced off at most times of the year, in contrast to most types of bark which peel easily only during the spring and early summer.

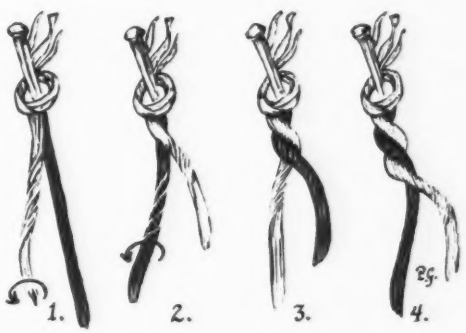
Spruce-root cordage was one of the strongest and most universally popular types of rope among the American Indians, from East to West. The long strands of rootlets were dug up, scraped and soaked, then split and smoothed for use in spinning or plaiting into rope. Where spruce was not available, jack pine, cedar, hemlock, and many other roots were often utilized satisfactorily.

A transplanted European method of making rope is the use of hay or long meadow grasses. I have found that after it has cured a day or two, in order to eliminate the excess moisture, it twists and holds its shape better than fresh green grasses. The method of twisting is the same as for bark rope, which method is illustrated below. Because of its coarseness and its brittleness when dry, this type of rope was of limited use in jobs where durability or high tensile strength was called for. On the other hand long lengths could be quickly run off and used for tying up bundles of faggots, firewood, hay, and plants. In parts of northern Europe it has long been used for securing haycocks, and tying down straw roofs.

In up-State New York bark rope most commonly was made of the inner bark of the elms, willow, and basswood. The bark could be peeled off with a bark spud during spring and summer, bringing the inner bark with it, which was pulled off in thin strands for twisting. If sheets of bark can be procured from dead trees the inner bark will frequently pull out in thin workable strips. But with "green" bark it is usually necessary to boil the bark for an hour or so in hot water with a little hardwood ash or lye in order to allow the inner bark to pull freely. In addition to freeing the fibers, the lye water turns the strips to a soft reddish-brown colour which is quite pleasing, even though not strictly utilitarian. After removing the strands of inner fibre they should be rinsed in clear running water, to remove the free alkali, which would otherwise reduce the strength and life of the rope. If the fibres are not to be used immediately, they are hung up to dry until needed, at which time they should be resoaked in order to make them flexible when being spun.

Spinning I have found it convenient to knot the beginning strands together and nail the end to a bench or wall in order to give a tighter twist to the rope for the sake of neatness. But it is not necessary — after the first few strands have been spun and twisted (or laid) bark cordage maintains its twist, instead of unraveling. If the strands to be worked are well soaked, they will twist easily, and once dry, will maintain their form. (For the sake of simplicity I have diagrammed the making of two-ply rope, although the principle is the same for three-ply.)

The first strand is twisted to the left (counter-



clockwise) three or four times between the thumb and forefinger of the right hand, and then laid over to the right. The second strand is next twisted the same way, a few times to the left, then laid over to the right, over its neighbor. The principle, as in all cordage making is, "twist in one direction, and lay to the opposite." Continue this pattern — a few twists to the left, and lay to the right over the top of the preceding strand, until the rope or cord is long enough.

Since the twist of the strands are in the opposite direction from the lay of the rope ,the two equal and opposite pressures keep the rope from unwinding. Strands should be of uneven length, in order that the splices will not coincide on each strand, causing a lumpy looking rope. With care in introducing splicing lengths a few inches above the end of each old strand a neat line can be spun. Using the principles outlined above, two or three finished

(Continued on page 20)

SHOEMAKER'S WINDOW

IN RESPONSE to our query in the *Chronicle,* September, 1960, issue number 3, page 35, a shoemaker's window, we obtained these two interesting pictures of the interior of shoemakers' shops showing two different types of "windows." These were reproduced in the "Illustrierte Zeitung Berlin" of June 16, 1883, and were sent to us

Fig. 1.

by Mr. Ed. Engensperger, Curator of the Bally Shoe Museum, Bally-Ausstellung Felsgarten, Schonenwerd, Switzerland.

Figure 1 is French and titled: "In my Working Shop." Figure 2, is German and titled: "In a Spanish shoemaker's Working Shop."

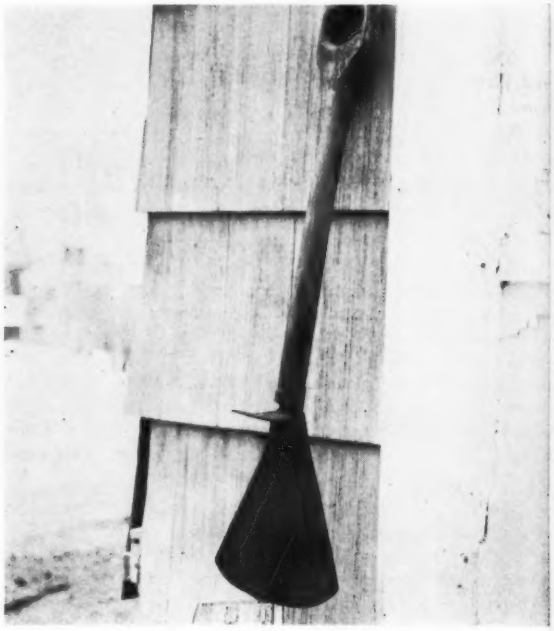
The French window is similar to the shoemaker's globes sent in by Robert Mitchell and illustrated in the *Chronicle,* December, 1960 issue, number 4, page 47.

We are still hoping we will find a Shoemaker's window as we illustrated in the above mentioned Chronicle.

Fig. 2.

CHEESE CUTTER - FOR CIDER

SELAS M. WHEELER.



THIS spade-like device was called a "cheese cutter" in my part of Massachusetts. Why it was called this when it was used in the cider mill in the making of cider, I do not know! I would be interested if anyone who reads this article might furnish me with the answer and a logical explanation!

Before burlap was used to hold the pomace of apples for pressing, rye straw was used. After the pressing there was left a mixture of pomace and rye straw and it became a problem to remove this mixture so that a new pressing could be made. It was for this purpose that this "tool" was made.

CORDAGE OF NATIVE MATERIAL

(Continued from page 19)

lengths of cordage can in turn be twisted and laid together, making a heavier rope. The ends of the cord can be whipped with fine thread or bark strands, as with regular rope, to keep the ends from fraying.

Bark rope is strong for its diameter, almost rotproof, and it is supple and smooth to the touch, even when wet, which accounted for its popularity among the American Indians and among many of the fishermen of northern Europe. For the person interested in a better understanding of one aspect of primitive technology, here is an opportunity for experimenting and obtaining a useful product in addition.

The Chronicle

Early American
Industries Association, Inc.

The purpose of the association is to encourage the study and better understanding of early American industry, in the home, in the shop, on the farm, and on the sea, and especially to discover, identify, classify, preserve and exhibit obsolete tools, implements, utensils, instruments, vehicles, appliances and mechanical devices used by American craftsmen, farmers, housewives, mariners, professional men, and other workers.

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Communications regarding the contents of *The Chronicle* and back issues should be addressed to the Editors; suggestions for members to John P. Fox; all other matters to the President. Address as here given.

DUES

The annual dues are payable on January 1st and are $6.00. The *Chronicle* is published quarterly and is sent to all members without additional charge. Printed on the press of The *Virginia Gazette*, founded 1736, *Williamsburg, Virginia.*

President's Message

AS YOU are doubtless aware, a large multi-million dollar building is now under construction for the Smithsonian Institute, Washington, D. C. It will house the Museum of History and Technology, in which a prominent hall will be devoted to exhibits showing the growth of the United States pre-1640 to the present time. The processing of raw materials will be an important theme, developed by means of suitable exhibits. It is obvious that to do this effectively, a large and varied collection of hand tools is highly essential.

It is in this connection that a unique opportunity presents itself to the Early American Industries Association as an organization, and to our members as individuals, to be of service to the nation and at the same time greatly further our stated objectives.

This project was discussed by Elwood Way, Chairman of this special Committee at the Williamsburg meeting in 1959, and since that time has been the subject of conference and discussion with the staff of the Smithsonian Institution to determine specific needs. Such preliminaries having been completed, it is now possible to proceed.

The Association, through a special committee, will solicit contributions from members of hand tools and equipment used in America prior to 1850, in the trades of builder and carpenter. It is desired that they be typical, and where possible that the period during which they were used to be stated with a degree of accuracy, dated specimens, of course, are the most desirable.

Upon assembly of suitable lots, the tools contributed will be turned over to the Smithsonian Institution as a gift from the Association. The names of individual donors will be recorded at the Smithsonian Institution, and the EAIA will be publicly attributed as the donor.

The committee will issue receipts for all items donated ,and will, upon request, furnish a supplementary form showing their appraised value for income tax purposes.

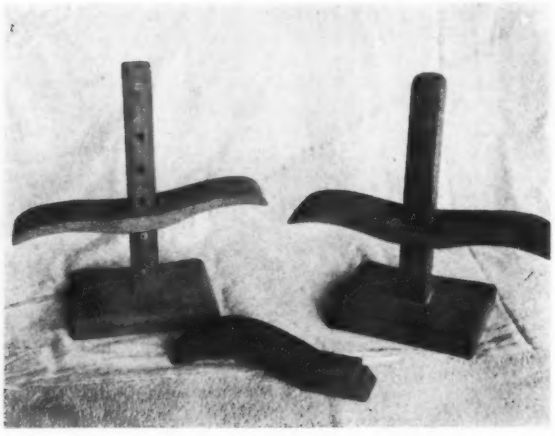
The Arts and Industries Building of the Smithsonian Institution is presently visited by two million persons annually. It seems probable that this number will be greatly increased when the new building is completed. It is anticipated that greater emphasis will be placed upon the tools and crafts which have had such great significance in the early growth of the country. Every effort will be made to display them in a most effective and instructive manner, with all due regard to modern exhibit technique.

The Association since its earliest days has been composed of enthusiastic individuals, highly dedicated to the study and preservation of early tools and implements. Its meetings have been instructive and enjoyable, but up to now there have been few if any opportunities for a large segment of its members to unite in a common cause.

It is suggested and urged this opportunity for service be accepted generally by each and every member as a challenge to be met by response that will truly indicate his interest in and dedication to the objectives of his Association.

(Continued on page 23)

WHATSIT



THESE two interestng whatsits pictured above were sent in by Mrs. Eleanor B. Harding, Norwichtown, Connecticut. They were found on the ledge of the basement foundation in an abandoned house probably built around 1740. They had been placed, for some unknown reason, back in a corner where it was dark and could not be seen from inside the cellar when the house was standing. The only reason they were found now is that part of the foundation has just collapsed and they were seen from outside.

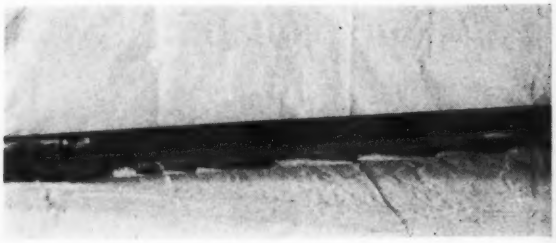
Mrs. Harding believes they are made of maple and do not appear as if they had ever been used for anything. The one on the left has been finished very smoothly while the other one is rough and neither appears to have ever been painted. As can be seen they are adjustable as to height by placing a peg in the desired hole. They are definitely hand made and appear almost new, probably due to being placed in the dark corner and left there over these many years. The piece of wood in front of the two objects was found later in the basement and appears similar.

The base is 1-⅛ inch thick, 7 inches long and 4-¾ inches wide. In the post the first hole is 3-⅜ inches from the base and the next holes are 1-½ inches apart; the diameter of the holes is 5/16 inch. The top hole is 2-15/16 inches from the top, and the post is 1-3/16 square. The cross-piece is 11-13/16 inches long; ¾ inches thick at the center and ½ inch at the curve. It is 2-½ inches wide. The all-over height is 12-⅛ inches.

Mrs. Harding would like very much to know for what purpose these items were used. Can you help her?

WINDOW PULLEY

MRS. HARDING also sent in this interesting account of a window pulley. Their house was built in 1771 and is a central hall house with a gambrel roof. While restoring the room this summer, which was the original dining room, they came across the window pulleys. Some one hundred years ago when the fireplaces were made smaller and window sash and frames had been changed, the wide floor boards had also been taken up and newer narrower boards put down. Between the old sub-



flooring and the new floor they had used pieces of window frame and trim as sleepers. One of these pieces was a piece of frame hollowed out to make room for a weight and in one end of it was found the original wooden pulley. All the persons that Mrs. Harding has shown this to have said that this is the only example that they have ever seen of one as old as this.

The top picture shows a long view of the frame and the bottom picture a close up of the wooden pulley. Note the marks of the clapboard on the frame.

A CRAFTSMAN'S PRIDE

TOMBSTONE OF 1747 DEPICTING A JOINER'S SET OF TOO[illegible] AT LEWES, SUSSEX

from Country Life

THE above pictured tombstone is in the graveyard of St. John sub Castro Church, Lewes, Sussex, England. It is the tomb of Mark Sharp, a churchwarden and a carpenter. The headstone was carved by his own hand and represents practically all the tools of his trade. He died in 1747. All the lettering has worn away from the stone, and only the date and the carving remain.

President's Message

(Continued from page 21)

Mr. Peter C. Welsh, Associate Curator, Department of Civil History of the Smithsonian Institute has suggested that in order to get things started that a concentration be placed on obtaining the tools of the Carpenter and Joiner. As a suggested guide to those desired the below list was taken from Thomas Martin's *Circle of the Mechanical Arts,* London, 1813:

CARPENTERS TOOLS

Axe
Adze
Saw
Socket Chisel
Firmer Chissel
Auger
Gimblet
Gauge
Square
Compasses
Hammer
Mallet
Hook Pin
Crow
Plumb Rule
Level
Ripping Chissel
Maul
Ten Foot Rod
Plane

JOINERS TOOLS

Jack Plane
Trying Plane
Smoothing Plane
Plane Irons
Tenon Saw
Compass Saw
Keyhole Saw
Square
Bevel
Gauge
Mortice Chissel
Gouge
Turn Screw
Plough
Moulding Plane
Pincers
Brad Awl
Stock and Bit
Side Hook
Rule
Long Plane
Jointer
Compass Plane
Forkstaff Plane
Straight Block
Sinking Rebatting Plane
Skew Mouthed Rebatting Plane
Square Mouthed Rebatting Plane
Side Rebatting Plane
Bed Plane
Snipes Bill
Hollows and Rounds
Moulding Planes
Centre Bit
Counter Sink
Rimers
Taper Shell Bit
Drawing Knife
Ripping Saw
Half Ripper
Hand Saw
Pannel Saw
Sash Saw
Dovetail Saw
Mortice Gauge
Mitre Box
Shooting Block
Straight Edge
Winding Sticks
Mitre Square
Work Bench

Any of our members who plan on attending the meeting at State Island may bring any contribution with them. If your contribution is too large to bring, it would be helpful to have a photograph made of it.

Again let me reiterate that this is a challenge to our Association and one that I feel we can meet.

Fred C. Sabin

A WHATSIT FROM ENGLAND

"THE WOODWORKER, NOVEMBER, 1960."

TWO VIEWS OF THE MYSTERY APPLIANCE

241 . NOVEMBER, 1960

WE QUOTE from this publication:

"With reference to your feature showing old tools whose purpose is somewhat obscure, I enclose two photographs showing a type of jig which I have in my possession. It is made of mahogany and consists of a base piece with an end stop. The base carries two members, marked (X) and (V) in the photograph. These are able to slide sideways and are secured by screws passing through the base. On top of the two members is a cast brass bridge piece through which passes a screw which serves as a clamp.

"Not discernable in the photograph at the end marked (A) is a 7/32 in dia. hole bored through a boxwood slip which passes through the block horizontally; it emerges on the inner face of the block ¾ in. above the base. This would appear to be a guide for a bit. This is confirmed by the hole being bell mouthed on its other side.

"A rectangular hole in the base has a less obvious purpose. It is not marked or scored on its inner surfaces in any way. It will be seen that the sides of the hole are lined with a timber similar to boxwood, the corners being beautifully mitred. The last items of interest are the two lugs at each end of the base. The class of workmanship would suggest that it has been made by a planemaker.

"In operation it would appear that a piece of timber was inserted between the two sliding members and clamped in position; a hole would then be bored in the end using the hole in the end stop as a guide.

"Some of the questions that remain unanswered are: what is the rectangular hole for? what are the lugs for? and what item would be needed in sufficient quantity to require a jig of this quality, also taking into consideration that it appears to be 100 to 150 years old?"

BABY WALKERS

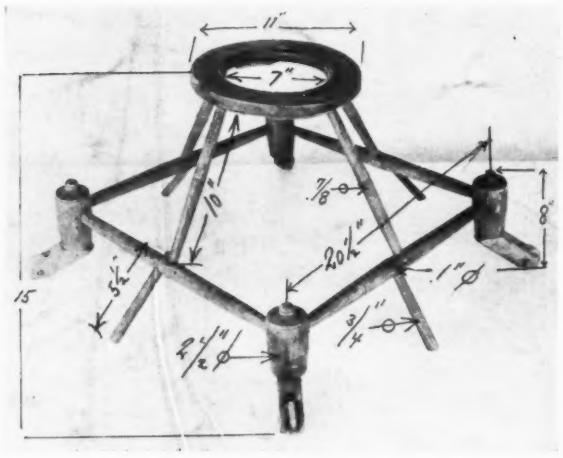


Fig. 1. Photo by Shelburne Museum.

THE BABY walker pictured in figure 1 is in the Shelburne Museum, Shelburne, Vermont. It was obtained from a local antique shop. They had obtained it from Ohio. It is almost exactly like the baby walker pictured in Wallace Nutting's 'Furniture Treasurery, No. 1430. He describes it as: "Baby Walker of amusing crudity in the base. The contrivance which held the wheels swung about. There is, of course, a round opening in the top on which the baby rested hands. While it is impossible to date this unique affair, it is as early as the 18th century or perhaps the 17th." Mr. Nutting may call it crude; however it appears to have demanded considerable thought and craftsmanship to construct.

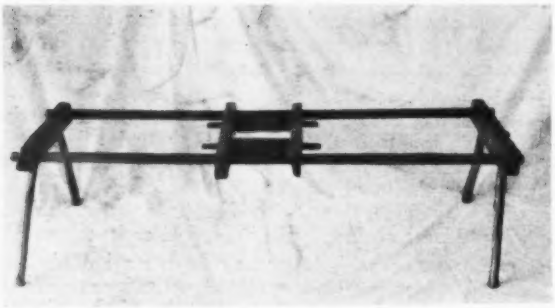


Fig. 2. William Redhed collection.

The baby walker pictured in figure 2 is among William Redhed's collection, Homer, Illinois. He purchased it about 10 years ago and for a long time thought that it might be unique, as it appears to have been handmade. However, during the summer of 1958 he saw one of the same design in the Folk Museum, Cambridge, England that appeared to be factory made — at least the members were of sawn lumber while his has no sawed lumber in it. This raises an interesting question. Did someone see the manufactured one and then make the one Mr. Redhed has? Or vice-versa?

Spoke-Set Gauge

THE below account describes the method the wheelwright uses this tool. We would like very much to obtain a photograph of one for the Chronicle. Can any of you help us out?

The wheelwright places the nave on a low stool called a mortising-cradle and marks out by trial and error the centers of the required number of spoke-mortises. When this is accomplished a spoke is used to mark out all the mortises on the nave. By holding a 3 x 1 inch "foot" of the spoke against the gauge line and directly over the center line, the outline of the "foot" is marked in. The mortises are then bored with an auger or a 12 or 14 inch sweep-brace with a 1 inch bit. Three holes are bored, one at the front, one at the back, and one in the center of each mortise-mark. The wheelwright depends entirely on his own judgment and skill for this operation, for the front hole has to be at a slight angle to allow for the dish of the wheel.

The next step is to chisel out the spoke-mortises, but before this is done a gauge known as a *spoke-set gauge* is prepared. This consists of a piece of hardwood 2 feet 9 inches long, about 2-½ inches wide, and 1 inch deep. About 4 inches from one end a hole large enough to take a 7/16 inch coach-screw is bored, while at the other end a series of ⅜ inch holes, an inch apart, is bored. A piece of whalebone 9 inches long is passed through the required hole and wedged there. The position of the whalebone depends on the size of wheel being made. For example, to make a wheel 4 feet 10 inches in diameter, the position of the whalebone should be at half the diameter of the wheel (2 feet 5 inches) minus the depth of the felloe (3-½ inches, for example), which would equal 2 feet 1-½ inches from the coach-screw pivot of the gauge.

The spoke-set gauge prepared, the next step is to plug the central hole that runs from one end of the nave to the other. With the compasses the exact center of the nave-face is found, and at that point a hole large enough to take the coach-screw pivot is bored. The gauge is screwed up close to the face of the nave so that it is just possible to turn it without turning the nave. The main purpose of the spoke-set gauge is to measure the *dish* of the wheel; since the spokes in a dished wheel emerge from the nave at an angle, the spoke-mortises also have to be cut at an angle. The whalebone of the gauge is set to the point where the spoke will enter the felloe; that is, 2 feet 1-½ inches from the central pivot in a 58-inch wheel. Next, the distance between the gauge and the turner's face mark at the base of the front spokes on the nave is measured. In a nave 12-½ inches long it will be 4-½ inches, as the face-mark is 8 inches from the back end of the nave. If one requires a ½ inch dish on the wheel, then the whalebone should project 4 inches beyond the stick. In cutting the mortise, the slant of the boring must be such that a narrow straight-edge held against the front of the mortise just touches the whalebone. The reason for using a springy whalebone gauge, rather than a rigid stick, becomes apparent when the spokes are being driven into the nave.